

ABSTRACT

The present invention is directed to a single test system and method for determining the integrated glycemic condition of a subject by measuring the concentration of glucose and the level of protein-bound glucose in a subject's body fluid, such as whole blood. The glucose concentration is indicative of the subject's immediate glycemic condition, whereas the protein-bound glucose concentration is indicative of either intermediate or long-term glycemic condition. Optionally, other analytes indicative of glycemic condition, such as ketone bodies or fatty acid derivatives, can also be measured. The present invention also provides a method of diagnosing diabetes. The invention additionally provides a method for analyzing the concentration of fructosamine in less than or equal to five minutes without the use of a reaction accelerator.